Typical Visual Impacts Created by Utility Lines and Corridors

In order to understand some of the terminology being used in this report to assess visual impacts a sampling of typical types of impacts is provided in these examples.

Clutter

Clutter occurs when numerous poles and wires are present together in a landscape. Example (A) shows clutter within a corridor; different pole heights and types contribute to clutter. Example (B) illustrates clutter that can occur when distribution and transmission lines exist in a highly visible, well traveled landscape that also contains other elements such as the railroad crossing apparatus.

Skylining

Skylining results from structures and conductors being highly visible against the sky when viewed from scenic roads or identified public vantage points. The placement of structures can often block a long distance view and undermine the aesthetic qualities of a pastoral landscape (Example A). When the structures exceed the height of the background vegetation, that vegetation can no longer "absorb" some of the visual impact from transmission corridor and thus soften or de-emphasize its presence in the landscape (Example B).

Photo Credit: LandWorks

Scale

Tall or massive transmission structures proposed to be located in proximity to residences can be shocking to those who live in and visit neighborhoods near to or bisected by transmission corridors and result in a loss of screening vegetation (Example A). Corridors and structures immediately adjacent to roadways or other developed areas (Example B) dwarf cars, pedestrians, other human scaled elements in the landscape and even the buildings in some respects, as shown in this photograph of a route through Essex, Vermont.

Viewshed Impact

In some locations the presence of transmission lines can severely impact the aesthetic quality of an important viewshed or scenic view. In these locations alternative routing or undergrounding are viable alternatives to mitigate or eliminate such impacts. Example (A) is an important and well traveled road that has a panoramic view of the Green Mountains undermined by the presence of a transmission corridor on the height of land. Example (B) is a view of the PV20 line adjacent to the Route 2 Causeway between Milton, Vermont and South Hero, Vermont.

Photo Credit: LandWorks

Intact Landscapes

Open fields and meadows represent intact open spaces that make up Vermont's pastoral and rural agrarian landscapes. These two examples illustrate transmission corridors which cut through these types of landscapes and undermine scenic quality. These alignments can also affect the use of the field for farming purposes. Routing lines along edges takes advantage of backgrounding with perimeter vegetation, often takes the line out the immediate public viewshed and maintains the overall integrity of these open spaces.

Backgrounding

Backgrounding occurs when transmission lines and corridors do not exceed the height of vegetation behind them and thus are visually absorbed by the landscape (Example A). Structure height and vegetation height are the two variables which must be considered when planning for new lines or upgrades. Another related issue is where the line is placed. Some existing corridors are below the viewing angles of the travelling public such as this view towards a corridor which runs along Route 7 in New Haven, Vermont (Example B).

Photo Credit: LandWorks

Screening or Buffering

The importance of vegetation to screen or buffer power lines cannot be underestimated as a means to mitigate the visual impact of power lines. Vegetation must be appropriately placed and sufficient in size to accomplish this goal. In other instances, maintaining a treeline between a traveled way or a residence will be critical in softening or de-emphasizing the visibility of a corridor. Thus demarcating and protecting existing vegetation can be as critical as planting new trees to accomplish appropriate mitigation. These two examples show how existing vegetation buffers or screen transmission corridors.

Photo Credit: LandWorks